

[6450-01-P]

DEPARTMENT OF ENERGY

Office of Energy Efficiency and Renewable Energy
[Docket Number EERE-2011-BT-NOA-0064]

Measured Building Energy Performance Data Taxonomy

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notice of request for information (RFI).

SUMMARY: The U.S. Department of Energy (DOE) seeks comments and information related to a measured building energy performance data taxonomy. DOE has created this measured building energy performance data taxonomy as part of its DOE Buildings Performance Database project. This information is focused on data related to the energy performance of buildings and is not intended to be a general taxonomy for other building information and applications (i.e., non-energy applications such as structural analysis, space planning, et cetera).

DATES: Written comments and information are requested on or before [INSERT DATE 30]

DAYS FOLLOWING DATE OF PUBLICATION IN FEDERAL REGISTER].

ADDRESSES: Interested persons may submit comments, identified by docket number EERE–2011–BT–NOA-0064, by any of the following methods. Your response should be in the form of either a word document, or a compatible format. Questions relative to responding to this RFI may be sent to the same mailbox in advance of your response, and will be answered via email.

- E-mail: to <u>TaxonomyRFI123-0064@ee.doe.gov</u>. Include EERE–2011–BT–NOA-0064 in the subject line of the message.
- Mail: Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program,
 Mailstop EE–2J, Revisions to Energy Efficiency Enforcement Regulations, EERE–2011–
 BT–NOA-0064, 1000 Independence Avenue SW, Washington, DC 20585–0121. Phone:
 (202) 586–2945. Please submit one signed paper original.
- Hand Delivery/Courier: Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, 6th Floor, 950 L'Enfant Plaza SW, Washington, DC 20024.
 Phone: (202) 586–2945. Please submit one signed paper original.

Instructions: All submissions received must include the agency name and docket number.

FOR FURTHER INFORMATION CONTACT: Direct requests for additional information may be sent to Cody Taylor, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program, EE-2J, 1000 Independence Avenue SW, Washington, DC 20585-0121. Telephone: (202) 287-5842. E-mail: TaxonomyRFI123-0064@ee.doe.gov.

SUPPLEMENTARY INFORMATION:

Overview.

The U.S. Department of Energy (DOE) seeks comments and information related to a measured building energy performance data taxonomy. DOE has created this measured building energy performance data taxonomy as part of its DOE Buildings Performance Database project. This information is focused on data related to the energy performance of buildings and is not intended to be a general taxonomy for other building information and applications (i.e., non-energy applications such as structural analysis, space planning, et cetera). A copy of the information on which DOE seeks comment can be downloaded from this web address: http://buildingsperformance.net/taxonomyrfi. Stakeholders should download the taxonomy file from the provided website, as the information is not duplicated in this RFI.

Detailed Description.

The data taxonomy described in this RFI provides guidance on how measured building energy performance data and building characteristics are defined, organized and classified in the DOE Buildings Performance Database. The full taxonomy description can be downloaded at this site: http://buildingsperformance.net/taxonomyrfi. Please use this web address to access and download the information on which DOE is seeking comment.

The taxonomy was developed with several goals in mind. The taxonomy is intended to be general and flexible enough to accommodate a wide set of current and anticipated use cases to analyze the measured energy performance of both commercial and residential buildings. The taxonomy should be general enough to support use cases for multiple stakeholders including financiers, utilities, service providers, and policy makers, and flexible enough to accommodate

use cases that have not yet been fully specified. The taxonomy should support a wide range of existing data sources while also anticipating future data collection efforts that may provide more detailed datasets. The taxonomy focuses on measured building energy performance data and related building characteristics, and does not include modeled or derived data. Finally, it does not include any fields for personally identifiable information or the identity of the data source.

The taxonomy presented was developed after reviewing and considering related efforts, such as the Industry Foundation Classes, OmniClass systems, ASTM Building Energy

Performance Assessment checklist, and ASHRAE Audit Procedures Checklist. To date, the taxonomy has mapped five data sources, including the Commercial Building Energy

Consumption Survey, the Residential Energy Consumption Survey, University of Dayton,

ENERGY STAR, and the General Services Administration data. The taxonomy will continue to evolve as new data sources are mapped.

Overview of the Taxonomy

The taxonomy consists of entities and data fields. Each entity is a logical grouping of data fields. The entities and their inter-relationships generally reflect the hierarchical nature of building characteristics (site, facility, activity area, building systems). This scheme was developed using a "top-down" approach, based on a logical understanding of building performance information, and is intended to be flexible and stable enough to accommodate a broad array of use cases. For example, the entity "Facility" is used to describe the major characteristics of a building and has data fields for gross floor area, net floor area, number of stories, etc. There are currently sixteen entities within the taxonomy scheme.

The data field descriptions in the taxonomy contain a list of the data fields under each entity, along with the units of measurement and a description of each field. The data fields were developed using a "bottom-up" approach, by compiling and editing lists of fields from existing data sources and taxonomies. Certain data fields have enumerated types that provide a discrete set of named responses specific to the data field. An example of an enumerated type would be for the data field "Fuel." Responses include Electricity, Renewable Electricity, Natural Gas, Fuel Oil, Fuel Oil No. 4, Solar Hot Water, Kerosene, and Coal, among several other choices. Note that most constrained lists include items at different levels of specificity (e.g. Fuel Oil versus Fuel Oil No. 1), in order to accommodate a range of data sources and use cases. Therefore, the items in a constrained list are not mutually exclusive.

The data fields have been organized into three priority levels. The prioritization is based on the relative importance for analysis use cases, as well as relative ease of obtaining data.

Priority 3 data fields connote unusual fields or those that are unique to a particular data source.

For example, within the "Energy Use" entity, the Priority 1 data fields include elements such as Fuel (type), End Use Type, and Units. The Priority 2 data fields include elements such as Electric Utility, Electric Rate Structure, and Electricity Summer Peak Power. The Priority 3 data fields include elements such as Bottled Gas Amount, Amount Wood Burned, and Natural Gas Peak Power.

Issues on Which DOE Seeks Comment and Information.

DOE invites comments from respondents on all the specific elements discussed above, as well as any additional issues the respondent deems important. Specifically, DOE is requesting comment as to (a) the overall taxonomy schema i.e. the entities and their relationships; (b)

definitions of the data fields contained within this taxonomy; (c) new data fields needed to accommodate existing or anticipated future data sources. The full taxonomy can be accessed at http://buildingsperformance.net/taxonomyrfi.

Disclaimer and Important Notes.

This is an RFI issued solely for information and program planning purposes; this RFI does not constitute a formal solicitation for proposals or abstracts. Your response to this notice will be treated as information only. DOE will not provide reimbursement for costs incurred in responding to this RFI. Respondents are advised that DOE is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind DOE to any further actions related to this topic.

Confidential Business Information.

According to 10 CFR 1004.11, any person submitting information he or she believes to be confidential and exempt by law from public disclosure should submit via e-mail, postal mail, or hand delivery/courier two well-marked copies: One copy of the document marked confidential including all the information believed to be confidential, and one copy of the document marked non-confidential with the information believed to be confidential deleted. Submit these documents via e-mail or on a CD, if feasible. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

Factors of interest to DOE when evaluating requests to treat submitted information as confidential include: (1) A description of the items; (2) whether and why such items are customarily treated as confidential within the industry; (3) whether the information is generally known by or available from other sources; (4) whether the information has previously been made available to others without obligation concerning its confidentiality; (5) an explanation of the competitive injury to the submitting person which would result from public disclosure; (6) when such information might lose its confidential character due to the passage of time; and (7) why disclosure of the information would be contrary to the public interest.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

Issued in Washington, DC, on November 22, 2011.

Kathleen B. Hogan Deputy Assistant Secretary for Energy Efficiency Energy Efficiency and Renewable Energy

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